ENGI 330: ENGINEERING PRACTICUM (1 credit hour)

Course Description
This undergraduate engineering course is designed to supplement technical coursework in the school of engineering with practical application and with reflection on the challenges and value of applying knowledge to real-world problems in professional settings. Students who take this course will gain insight into the challenges of applying their knowledge to workplace problems, recognize the need for continuous learning, understand the importance of professional conduct, and clarify the kinds of tasks and projects at which they are most effective. To do this, they will be asked to identify, reflect on, and describe specific aspects of an internship experience that contributed to their own professionalism and maturity.

Only students who have declared an undergraduate engineering major may take this course.

Credit
ENGI 330, a 1-credit hour course, will be graded as satisfactory/unsatisfactory. This course cannot be counted towards fulfilling the major requirements of any engineering degree program. The course may be taken up to a total of two times (two semesters) for credit.

Prerequisites
An internship approved for evaluation by the supervising faculty member. The internship must, in the opinion of the supervising faculty member, use and develop the student's technical skills, commensurate with the level of other coursework the student is pursuing at the university. It must be conducted off-campus, and must require at least 20 hours per week during the summer, or at least 10 hours per week during the academic semester. Obtaining the internship is the responsibility of the student.

Course Outcomes
Students who complete this course will be able to:

- Comprehend the technical and professional knowledge, skills, and attitudes needed to solve problems encountered in the workplace.
- Realize the additional knowledge, skills, and attitudes required and the challenges they must overcome to solve practical problems.
- Understand workplace values and expectations and assess their own strengths and weaknesses in delivering to those expectations.

The student will be responsible for obtaining the internship and will meet with an engineering faculty member who agrees to be the course supervisor. (An engineering department may also designate an associate dean of engineering to supervise the course for its students.)

The student will be required to write a 4-5 page report that must include:

1. The name of the organization/company, the student's position, and job assignment
2. The name and title of the course supervisor
3. A summary of the specific project(s) the student worked on, duties and tasks performed, challenges encountered, and knowledge, skills, and attitudes employed

4. A description of what the student learned/gained from the internship experience with specific examples illustrating:
   a. Practical problem solving using engineering knowledge and skills
   b. Improved communication and time-management skills
   c. How the internship helped shape the student's academic and professional plans
5. A short signed statement from the student's work internship mentor or manager, indicating that the report is a fair description of the work that the student has undertaken, and giving relevant feedback to the student for continued professional development.

A student may register for this course concurrently with the duration of the internship. Alternatively, a *continuing* student may register for the course during the semester directly after the internship has been undertaken, provided that this is not the only course the student is registered for during that semester. When the course and internship are concurrent, the report must be submitted to the course supervisor within two weeks after the last day of the internship period. When the course follows the internship, the report must be submitted to the course supervisor within one month of the start of the semester in which the course is taken.